Use of Statistical Techniques in the AMEDD

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Outline

- Objectives
- Background
- Literature Review
- Research Design
- Tool Development
- Analysis
- Findings
- Implications
- Questions

Objectives

- Identify the most common statistical tests used by studied AMEDD Executives
- Recognize the knowledge comfort level reported by respondents
- Recognize the application comfort level reported by respondents
- Name the most frequently used statistical program reported and its limitations
- Identify implications of the study results

Background

- Study done as part of course work
- Evidenced-based practice, business sense and metrics
- Important decisions are being made
- “How well prepared are senior AMEDD executives to make these decisions?”

Literature Review

- Literature exists to support finance based classes in an HCA program
- Little in the literature that specifically discusses statistical knowledge requirements
- Many articles state curricula should include quality assurance
- Canada, Australia, UK, New Zealand
- United States HCA programs require a statistical class
- AMEDD requirements for becoming a healthcare executive

Research Design

- Exploratory study
- Development of a survey questionnaire
- Convenience sample
- Initial distribution lists obtained
- Distributed via a snowball email

Tool Development (Slide 1 of 6)

- Survey was self-administered via email
- Required
  - Specific questions
  - Concise
  - Simple to understand
  - Format readily available on most computers
  - Instructions due to the distribution method
- Pilot tested via email

Tool Development (Slide 2 of 6)

- 27 questions
- Four demographic questions
  - Job position
  - Length of time in the position
  - CONUS or OCONUS
  - Type of facility
- Do you have a Master's degree?
  - What year?
- What type of Master's degree?

Tool Development (Slide 3 of 6)

- Is a statistician available?
- Knowledge and ability to perform statistics required for job?
- What databases do you use?
- What analysis program do you use?
- Have you used parametric tests in the past year?
  - How many times in the past month?

Tool Development (Slide 4 of 6)

- Have you used nonparametric tests in the past year?
  - How many times in the past month?
- Do you use parametric tests more frequently than nonparametric tests?
- Identify which tests you have used in the past year.
- Of the previous list, list the three most frequently used in order.

Tool Development (Slide 5 of 6)

- Rate ability to read and interpret statistical procedures and results.
- Rate ability to perform quantitative analysis.
- Do you collect and analyze qualitative data?
- List the graduate level statistics courses you have taken.

Tool Development (Slide 6 of 6)

- What do you think are the core competencies of statistical analysis for an HCA Master's?
- What information would you like to see in a statistics refresher course?
- Additional comments.

Analysis

83 usable surveys were returned
  - Common errors
    - Returned a blank survey
    - Returned survey more than once
- 69 variables
- Data analyzed using SPSS and Excel
  - Problems with the programs
- Fisher exact test
- Chi Square
- Phi Coefficient
- Correlations

Findings (Slide 1 of 4)

- Excel is the most frequently used program
- Most common tests used
  - Descriptives
  - Regression
  - Correlations
  - Factor analysis
- Nonparametric tests v. parametric

Findings (Slide 2 of 4)

- Baylor degree achieved statistical significance for
  - Use of parametric statistics
  - Ability to read statistical results
  - Ability to perform statistical procedures
- Position of comptroller also reached statistical significance for the ability to perform statistics
- Baylor degrees reported higher mean scores for both reading and performing statistics

Findings (Slide 3 of 4)

- 80% reported having a Master's degree
- Over 80% indicated knowledge was required
- 16% reported being uncomfortable with reading and interpreting
  - Mean 2.829
- 31% indicated they were uncomfortable performing statistics
  - Mean 3.157

Findings (Slide 4 of 4)

- Only 23% had a statistician available
- 70% reported collecting qualitative data
- Open-ended question results

Implications (Slide 1 of 2)

- Shortfalls
  - 30% of respondents had a Baylor degree
  - No respondents in Clinical Services Division positions
- Analysis programs
- Poor scores for interpreting and performing

Implications (Slide 2 of 2)

- Senior executives relying on subordinates' analyses
- Parametric v. nonparametric
- Refresher courses
- Early training of future leaders
- Practical application for the training
- Online training

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REPUBLIC OF TEXAS · CHARTERED IN 1845 BY THE OLD
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QUESTIONS?

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